

REMARKS

The present amendment to the claims is submitted pursuant to Rule 607(c) and 35 U.S.C. §135(b). The claims marked as new correspond exactly or substantially to one or more claims of U.S. Patent 6,448,009 (the '009 patent). This Amendment is timely as the '009 patent issued on September 10, 2002. Attached to this Amendment is a copy of the '009 patent.

I. The Invention

The invention is a method for identifying a gene that modulates a process in a biological system utilizing nucleic acids (ribozymes) having randomized substrate binding sites.

II. Status of the claims

Claims 25–50, 65, and 71-100 are pending. New claims 101–130 are added.

III. Support for the newly added claims

The newly added claims 101-130 are fully supported by the present application as originally filed. Specific support can be found throughout the specification including examples and claims. The following are examples of support for claims 101-130.

Claims 101-103 find support on page 1, lines 19-20 (describing ribozymes as catalysts) and on page 5, lines 14-25 (describing the general method of identifying a gene that modulates a process in a biological system by introducing a library of ribozymes having randomized substrate binding sequences, selecting a ribozyme whose catalytic activity effects a phenotypic change in the biological system, and sequencing the binding site sequence of the ribozyme to identify the gene whose mRNA was cleaved by the ribozyme). Claims 101-103 correspond to claims 1-3 of the '009 patent.

Claims 104-106, reciting different types of ribozymes, find support on page 1, lines 19-24 and on page 7, line 27. Claims 104-106 correspond to claims 4-6 of the '009 patent.

Claims 107-109 find support on page 39, lines 9-10 (bacterial and plant) and on page 41, line 10 (mammalian). Claims 107-109 correspond to claims 8-10 of the '009 patent.

Claim 110, reciting different types of phenotypic changes, finds support on page 13, lines 28-35 and on page 46, in the section entitled, "One or more biological activities of the cell...is monitored." Claim 110 corresponds to claim 13 of the '009 patent.

Claims 111-115, reciting different types of expression vectors, find support in the section beginning on page 25 entitled, "Insertion of randomized ribozyme genes into a cloning or expression vector." Claims 111-115 correspond to claims 14-18 of the '009 patent.

Claims 116-119, reciting different types of viral vectors, find support in the section beginning on page 30 entitled, "Vectors useful for maximal ribozyme expression." Retroviruses on page 32. Adenoviruses on page 30. Adenoassociated viruses on page 31. Alphaviruses on page 34, section (c) entitled, "Sindbis/Seliki Forest Virus." Claims 116-119 correspond to claims 19-22 of the '009 patent.

Claim 120, reciting an expression vector derived from a bacterial plasmid, finds support on the carryover paragraph between pages 25 and 26 where prokaryote expression vectors are described. Claim 120 corresponds to claim 23 of the '009 patent.

Claims 121-123, reciting different promoters, find support on page 34, section 4, entitled, "Promoters useful for ribozyme expression." Pol II promoters are mRNA promoters and find support in the Beta-actin and gamma-globin promoter. Claims 121-123 correspond to claims 24-26 of the '009 patent.

Claims 124-125, reciting biological systems of prokaryotic and eukaryotic origin, find support on page 39, line 10, describing both prokaryotic and eukaryotic cell systems. Claims 124-125 correspond to claims 30-31 of the '009 patent, respectively.

Claims 126-127, reciting length of the substrate binding domain, find support on page 27, line 30. Claims 126-127 corresponds to claims 33-34 of the '009 patent.

Claims 128-130, reciting two binding arms, find support on page 1, lines 19-24 describing different ribozymes inherently having two binding arms, and on pages 27-28 describing binding arms. Claims 128-130 correspond to claims 36-38 of the '009 patent.

Applicants respectfully request that the Examiner enter the amendment.

CONCLUSION

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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